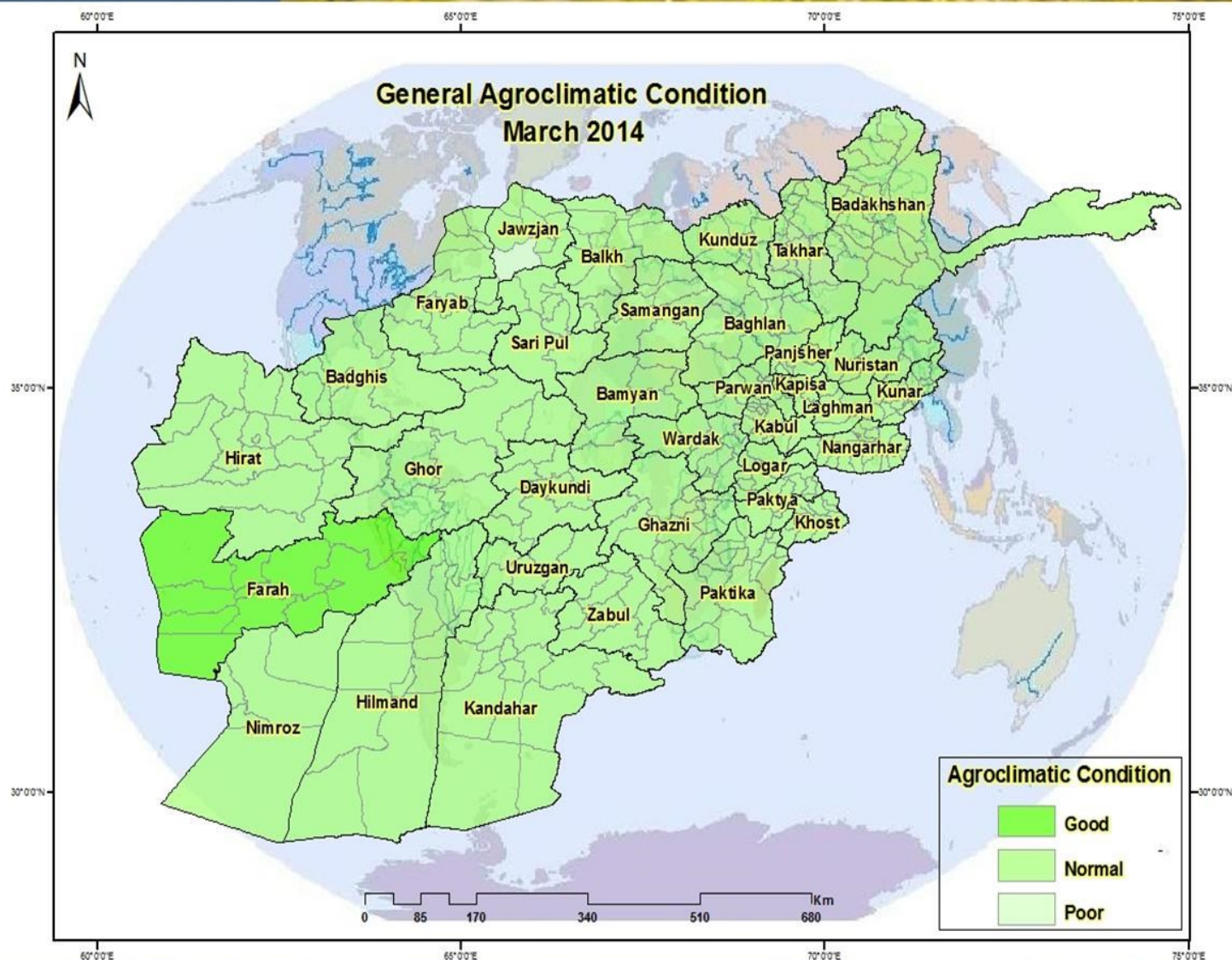




Issue No: 109
March: 2014

The fghanistan grometeorological AAMonthly Bulletin

Topics Crop Information Precipitation Temperature NDVI



Adverse Factor

1

Crop Condition

2

Crop Stage

3



The Agromet Network in Ministry of Agriculture, Irrigation, and Livestock(MAIL) is financially supported by European Union.

BULLETIN CONTENTS

Issue No: 109
March 2014

The Afghanistan's Agromet
Monthly Bulletin is being
Published on monthly Bases
in Dari and English
Languages.

Crop Information

| | |
|--|-----|
| Summary..... | 1 |
| Crop Stage, Crop Condition and Adverse Factor..... | 2-3 |
| Crop Maps..... | 4 |

Rainfall Situation

| | |
|---------------------------|-------|
| Precipitation..... | 5-6 |
| precipitation Graph | 7 |
| Rainy Days..... | 8 - 9 |

Snowfall Situation

| | |
|---------------------------------|-------|
| Comparison of Snow Extent | 10-11 |
| Snow Depth - March 2014..... | 12 |

Data Source:

Ministry of Agriculture , Irrigation and Livestock (MAIL), Agromet
Project and United States Geological Survey (USGS).

Summary

In entire country growth of wheat is satisfactory. However weeds, more rainfall and poor rainfall have been reported in a few areas such as Paghman and Surubi district of Kabul province, Asmar and Asad Abad district of Kunar Province, Waigal district of Nuristan province, Qaliazal district of Kunduz province, Khost and Ali Sher district of Khost province, Trinkot district of Urozgan Province, Sheberghan district of Jawzjan Province and center of Hirat province. The crop is reported at emergence and vegetative stages in most parts of the country such as Parwan, Bamyan, Khost and Paktika Provinces.

The crop is at flowering and dormancy stages in some parts of the country Such as Paktya, Laghman and Kunar Provinces.

During the month of March 2014, above normal rainfall was reported in most parts of the country such as Bamyan, Kabul, Khost and Kandahar provinces. Whereas below normal in few parts such as Takhar, Nuristan and Badghis provinces. Number of rainy days recorded in the country range from 1 – 14 days. The maximum number of rainy days in the country was observed 13 at Jawzjan Province.

Crop Stage, Crop Condition and Adverse Factor

| Zone | Province | District | Station | Wheat | | |
|---------|-----------|--------------|--------------|------------|----------------|----------------|
| | | | | Crop Stage | Crop Condition | Adverse Factor |
| Central | Kabul | Paghman | Paghman | Vegetative | Normal | More Rainfall |
| | | Kabul | Darulaman | Emergence | Normal | Not Existed |
| | | Surubi | Surubi | Flowering | Normal | Weeds |
| | Panjsher | Dara | Dara | Dormancy | | |
| | | Dashtak | Dashtak | Planting | | |
| | Parwan | Syagerd | Gorband | Vegetative | Normal | Not Existed |
| | | Charikar | Charikar | Vegetative | Good | Not Existed |
| | Kapisa | Mahmoodraqi | Mahmoodraqi | Vegetative | Normal | Not Existed |
| | | Kohistan | Kohistan | Vegetative | Normal | Not Existed |
| | Wardak | Maidan shehr | Maidan shehr | Emergence | Normal | Not Existed |
| | | Sayed Abad | Sayed Abad | Emergence | Normal | Not Existed |
| | Logar | Pole Alam | Pole Alam | Vegetative | Normal | Not Existed |
| | Bamyan | Bamyan | Bamyan | Emergence | Normal | Not Existed |
| | | Yakawlang | Yakawlang | Emergence | Normal | Not Existed |
| | | Shebar | Shebar | Dormancy | | |
| | | Kohmard | Kohmard | Emergence | Normal | Not Existed |
| | Ghazni | Andar | Bande Sardi | Planting | | |
| | | Muqar | Muqar | | | |
| | Dikondy | Dasht | Nili | Emergence | Normal | Not Existed |
| | | Khideer | Khideer | Emergence | Normal | Not Existed |
| East | Nangarhar | Agam | Agam | Vegetative | Normal | Not Existed |
| | | Batikot | Ghaziabad | Flowering | Normal | Not Existed |
| | | Jalalabad | Farm jaded | Flowering | Normal | Not Existed |

Crop Stage, Crop Condition and Adverse Factor

| Zone | Province | District | Station | Wheat | | |
|------------|------------|------------|-------------|--------------|----------------|----------------|
| | | | | Crop Stage | Crop Condition | Adverse Factor |
| East | Kunar | Asmar | Asmar | Flowering | Normal | More Rainfall |
| | | Asad Abad | Asad Abad | Flowering | Normal | More Rainfall |
| | | Chawkay | Chawkay | Flowering | Normal | Not Existed |
| | Laghman | Mihtarlam | Mihtarlam | Flowering | Normal | Not Existed |
| | | Qarghay | Qarghay | Flowering | Good | Not Existed |
| | | Alengar | Alengar | Flowering | Normal | Not Existed |
| | Noristan | Paroon | Paroon | Dormancy | | |
| | | Do Ab | Do Ab | Emergence | Normal | Not Existed |
| | | Norgaram | Norgaram | Vegetative | Normal | Not Existed |
| | | Waigal | Waigal | Vegetative | Normal | Weeds |
| North East | Takhar | Taluqan | Taluqan | Planting | | |
| | | Rostaq | Rostaq | Emergence | Normal | Not Existed |
| | | Aqmasjad | Aqmasjad | Emergence | Normal | Not Existed |
| | Kunduz | Imam Sahib | Imam Sahib | Vegetative | Normal | Not Existed |
| | | Qaliazal | Aqtipa | Vegetative | Normal | Not Existed |
| | | Khan Abad | Khan Abad | Vegetative | Normal | Weeds |
| | | Kunduz | Kunduz | Vegetative | Normal | Not Existed |
| | | Archi | Archi | Vegetative | Normal | Not Existed |
| | | Chardara | Chardara | Vegetative | Normal | Not Existed |
| | | Ali Abad | Ali Abad | Vegetative | Normal | Not Existed |
| | | | | | | |
| | Baghlan | Pulikhomri | Pozaishan | Vegetative | Normal | Not Existed |
| | | Doshy | Doshy | Vegetative | Normal | Not Existed |
| | Badakhshan | Eshkashm | Eshkashm | Pre-Planting | Normal | Not Existed |
| | | Baharak | Baharak | Emergence | Normal | Not Existed |
| | | Argo | Argo | Dormancy | | |
| | | Khash | Khash | Emergence | Normal | Not Existed |
| | | Faiz Abad | Faiz Abad | Emergence | Normal | Poor Rainfall |
| South East | Khost | Khost | Khost | Vegetative | Normal | More Rainfall |
| | | Khost | Shimal | Vegetative | Normal | More Rainfall |
| | | Ali Sher | Ali Sher | Vegetative | Normal | More Rainfall |
| | Paktia | Zormat | Rohani Baba | Dormancy | | |
| | | Gardiz | Tera | | | |
| | Paktika | Urgon | Urgon | Emergence | Normal | Not Existed |
| | | Sharana | Sharana | Emergence | Normal | Not Existed |
| | | Khair kot | Khair Kot | Emergence | Normal | Not Existed |

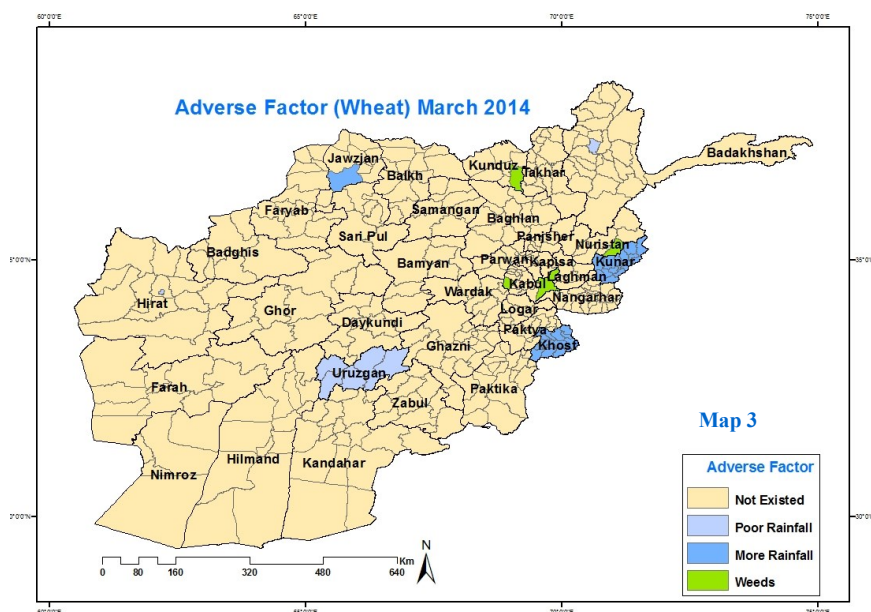
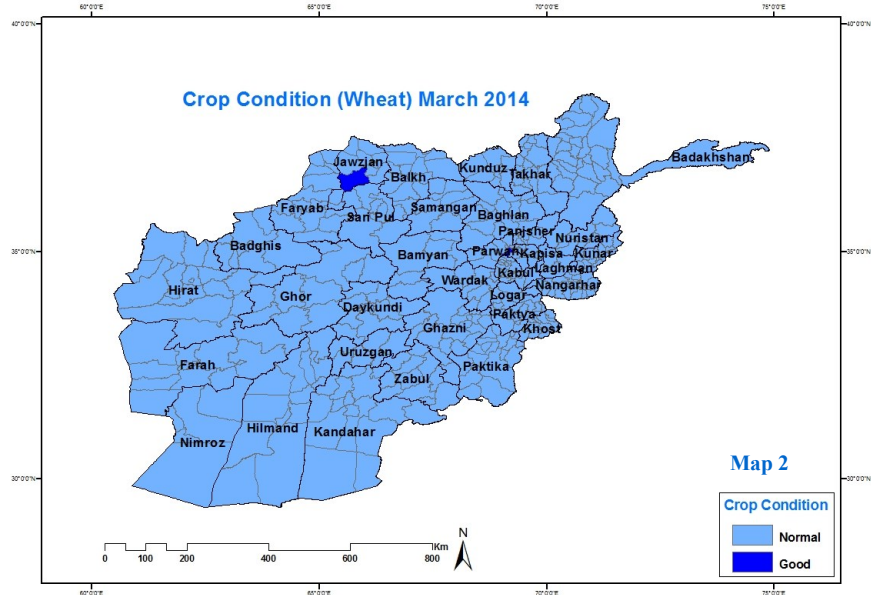
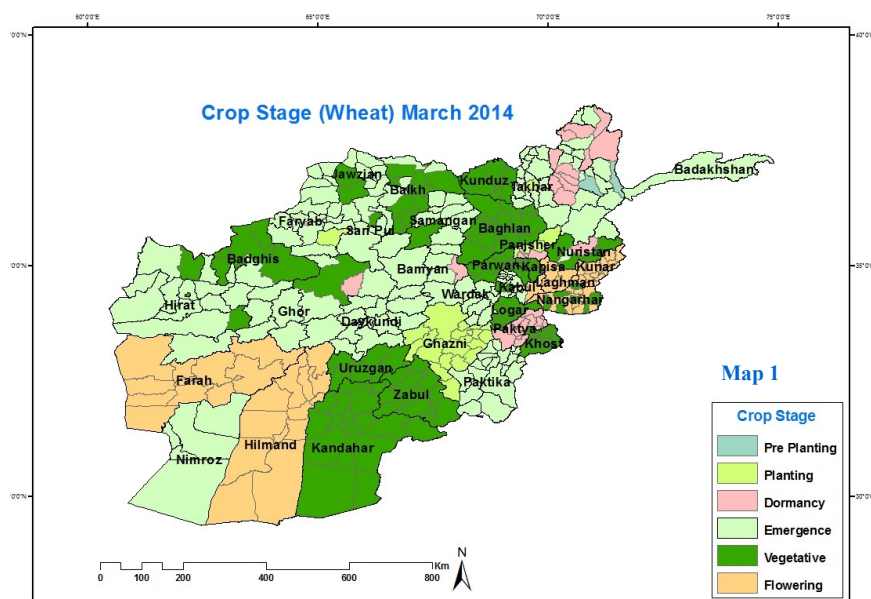
Data Source: Agromet Network

Crop Stage, Crop Condition and Adverse Factor

| Zone | Province | District | Station | Wheat | | |
|------------|----------|---------------|----------------|------------|----------------|----------------|
| | | | | Crop Stage | Crop Condition | Adverse Factor |
| South | Nimroz | Zaranj | Zaranj | Emergence | Normal | Not Existed |
| | Kandahar | Kandahar | Kandahar | Vegetative | Normal | Not Existed |
| | | Kohkaran | Kohkaran | Vegetative | Normal | Not Existed |
| | Zabul | Qalat | Qalat | Vegetative | Normal | Not Existed |
| | Urozgan | Tirin Kot | Tirin Kot | Vegetative | Good | Poor Rainfall |
| | Hilmand | Nad Ali | Nad Ali | Flowering | Good | Not Existed |
| | | Greshk | Greshk | Flowering | Good | Not Existed |
| | | Nawa | Nawa | Flowering | Good | Not Existed |
| | | Lashkargah | Bolan | Flowering | Good | Not Existed |
| North | Balkh | Takhta pol | Dehdadi | Vegetative | Normal | Not Existed |
| | | Mazar shareef | Mazare shareef | Emergence | Normal | Not Existed |
| | | Nahrishahi | Nahrishahi | Vegetative | Normal | Not Existed |
| | | Dawlat Abad | Dawlat Abad | Vegetative | Normal | Not Existed |
| | Jawzjan | Sheberghan | Sheberghan | Vegetative | Good | More Rainfall |
| | | Darzab | Darzab | Emergence | Normal | Not Existed |
| | | Aqcha | Aqcha | Emergence | Normal | Not Existed |
| | Saripul | Saripul | Saripul | Emergence | Normal | Not Existed |
| | | Sancharak | Sancharak | Emergence | Normal | Not Existed |
| | | Sozmaqala | Sozmaqala | Vegetative | Normal | Not Existed |
| | Faryab | Andkhoy | Andkhoy | Emergence | Normal | Not Existed |
| | | Garzewan | Garzewan | Planting | | |
| | Samangan | Aibak | Aibak | Emergence | Normal | Not Existed |
| | | Sarbagh | Sarbagh | Emergence | Normal | Not Existed |
| | | Dara Souf | Dara Souf | Vegetative | Normal | Not Existed |
| North West | Badghis | Maqur | Maqur | Vegetative | Normal | Not Existed |
| | | Qalainow | Qalainow | Vegetative | Normal | Not Existed |
| | Ghor | Chaghcharan | Chaghcharan | Vegetative | Normal | Not Existed |
| | | Dawlat yar | Dawlat yar | Dormancy | | |
| | Hirat | Shindand | Shindand | Emergence | Normal | Not Existed |
| | | Hirat | Hirat | Vegetative | Normal | Poor Rainfall |
| | | Zindajan | Zindajan | Emergence | Normal | Not Existed |
| | | Gwazara | Falahat | Emergence | Normal | Not Existed |
| | Farah | Farah | Farah | Flowering | Normal | Not Existed |

Data Source: Agromet Network

Wheat Crop Stage, Condition and Adverse Factor Maps



Data Source: Agromet Network

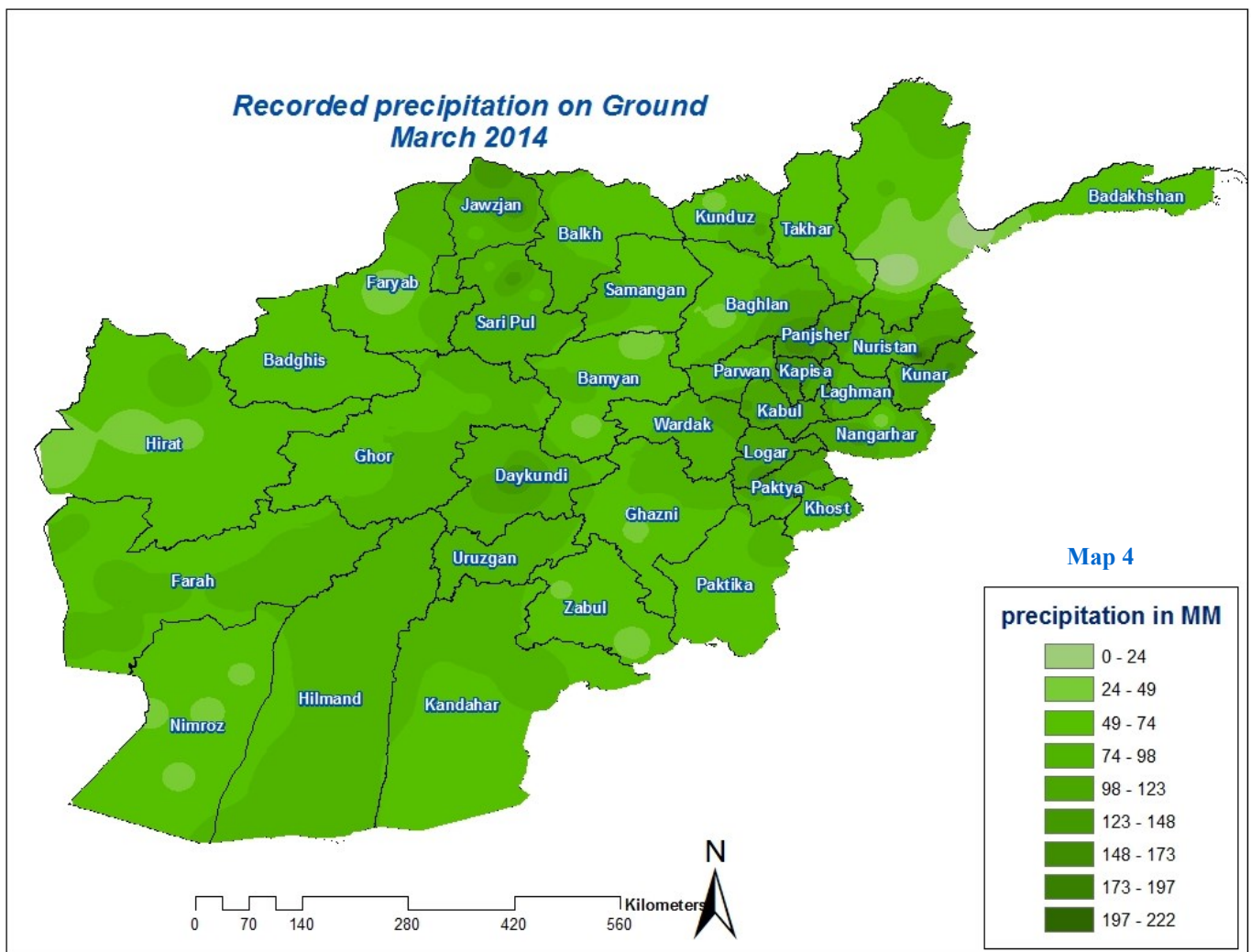
Precipitation

Comparison of monthly rainfall data for the month of March 2014, in contrast to the same month of March 2013, shows significant increase of rainfall in all of the areas aside from only area of Southern region which is Nuristan Province during the month of March 2014, compare to the same month of last year.

Comparison of monthly rainfall data for the month of March 2014 in contrast to the same month of Long Term Average, shows different situation of rainfall in entire country during the month of March 2014 compare to the same month of Long Term Average in most parts of the country.

It shows increase of rainfall while in other parts of the country especially in some parts of North East and North West and few areas of East it shows decrease of rainfall during the mention period of time.

widespread rainfall occurred during the month of March 2014, as Map (4) Shows the distribution of rainfall during the month of March 2014, in the entire country as the highest rainfall has occurred in Mahmood Razi center of Kapisa province which was 186.5 mm.



Precipitation

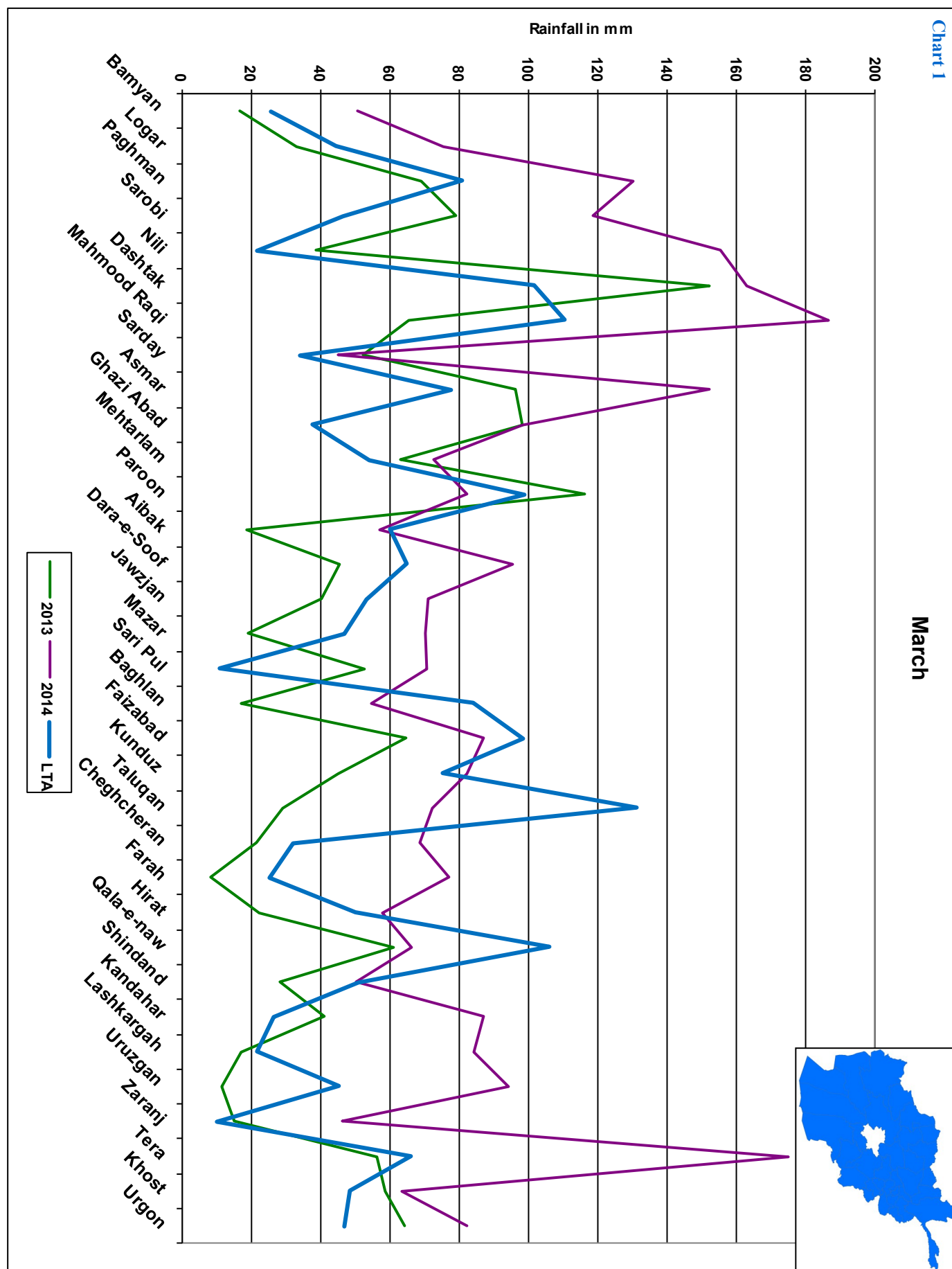
Widespread rainfall occurred during the month of March 2014, As table 1 shows, during the month of March 2014 in central part to the country Bamyan has received 50.6 mm, Logar 75.5 mm, Paghman 130 mm, Sarobi 118.2 mm, Nili 155.2 mm, Dashtak 163 mm, Mahmood Raqi 186.5 mm and Sardy 45mm of precipitation .The highest precipitation has been recorded in Mahmood Raqi center of Kapisa province which is 186.5 mm. In Eastern region Asmar has received 152 mm, Ghazi Abad 98 mm, Mehtarlam 72.5 mm, and Paroon 82 mm. The highest precipitation in this regain has been recorded in Asmar center of Kunar province which is 152 mm. In Northern region Aibak has received 57 mm, Dara-e-Soof 95.4 mm, Jawzan 70.8 mm, Mazar 70 mm, and Sari Pul 70.5 mm, the highest precipitation in this regain has been recorded in Dara-e-Soof district of Samangan province which is 95.4 mm. In North Eastern region Baghlan has received 54.4 mm, Faizabad 87 mm, Taluqan 72 mm, and Kunduz 82 mm, the highest precipitation in the North Eastern region has been recorded in center of Kunduz province which is 82 mm.

In Southern region Kandahar has received 87 mm, Lashkargah 84 mm, Uruzgan 94 mm, and Zaranj 46 mm, the highest precipitation in this region has been recorded in center of Uruzgan province which is 94 mm. In South Eastern region Tera has received 175 mm, Khost 63.2 mm, and Urgon 82 mm. In western region Cheghcheran has received 68.5 mm, Farah 77 mm, Hirat 57.9 mm, Qala-e-Naw 66.3 mm and Shindand 50 mm the highest precipitation in the respected region has been recorded in center of Farah province which is 77 mm. In conclusion we can say that, rainfall has two extremes the high extreme has occurred in Mahmood Raqi center of Kapisa province which is 186.5 mm during the month of March 2014, and the lowest extreme has occurred in center of Zaranj province which is 46 mm during the month of March 2014. For more information regarding the precipitation for the month of March 2014 please, refer to the below table.

| Station Name | March | | | Deviation | Comparison | Prediction Table 3 |
|---|-------|-------|------|-----------|---------------|--------------------|
| | 2013 | 2014 | LTA | | | |
| Bamyan | 16.6 | 50.6 | 25.4 | 25.2 | Above Normal | No Dryness |
| Nili | 38.4 | 155.2 | 21.7 | 133.5 | Above Normal | No Dryness |
| Dashtak | 152 | 163 | 101 | 61.6 | Above Normal | No Dryness |
| Logar | 33 | 75.5 | 44.3 | 31.2 | Above Normal | No Dryness |
| Paghman | 69 | 130 | 80.9 | 49.1 | Above Normal | No Dryness |
| Sarobi | 79 | 118.7 | 46.5 | 72.2 | Above Normal | No Dryness |
| Mahmood Raqi | 65.5 | 186.5 | 110 | 76.1 | Above Normal | No Dryness |
| Rainfall were increased in 2014 with respect to Long Term Average (LTA) | | | | | | |
| Asmar | 96 | 152 | 77.4 | 74.6 | Above Normal | No Dryness |
| Ghazi Abad | 98 | 98 | 37.7 | 60.3 | Above Normal | No Dryness |
| Mehterlam | 62.8 | 72.5 | 54.1 | 18.4 | Above Normal | No Dryness |
| Paroon | 116 | 82 | 98.6 | -16.6 | Bellow Normal | Dryness |
| Baghlan | 17 | 54.4 | 84.1 | -29.7 | Bellow Normal | Dryness |
| Faizabad | 64.5 | 87 | 98.2 | -11.2 | Bellow Normal | Dryness |
| Kunduz | 45 | 82 | 75.3 | 6.7 | Above Normal | No Dryness |
| Rainfall in Paroon, Baghlan and Faizabad were decreased in 2014 with respect to Long Term Average (LTA) | | | | | | |
| Taluqan | 29 | 72 | 131 | -59.1 | Bellow Normal | Dryness |
| Aibak | 18.5 | 57 | 60 | -3 | Bellow Normal | Dryness |
| Dara-e-soof | 45.3 | 95.4 | 64.8 | 30.6 | Above Normal | No Dryness |
| Jawzjan | 40.1 | 70.8 | 53.1 | 17.7 | Above Normal | No Dryness |
| Mazar | 19 | 70 | 46.7 | 23.3 | Above Normal | No Dryness |
| Sari pul | 52.5 | 70.5 | 10.9 | 59.6 | Above Normal | No Dryness |
| Kandahar | 41 | 87 | 26.3 | 60.7 | Above Normal | No Dryness |
| Lashkargah | 17 | 84 | 21.7 | 62.3 | Above Normal | No Dryness |
| Uruzgan | 11.5 | 94 | 45 | 49 | Above Normal | No Dryness |
| Rainfall were increased in 2014 with respect to Long Term Average (LTA) | | | | | | |
| Zaranj | 15 | 46 | 9.9 | 36.1 | Above Normal | No Dryness |
| Tera | 56 | 175 | 65.9 | 109.1 | Above Normal | No Dryness |
| Khost | 58.6 | 63.2 | 48.4 | 14.8 | Above Normal | No Dryness |
| Sarady | 52 | 45 | 34 | 11 | Above Normal | No Dryness |
| Urgon | 64 | 82 | 46.9 | 35.1 | Above Normal | No Dryness |
| Cheghcheran | 21.5 | 68.5 | 31.8 | 36.7 | Above Normal | No Dryness |
| Farah | 8 | 77 | 25.3 | 51.7 | Above Normal | No Dryness |
| Hirat | 22 | 57.9 | 49.9 | 8 | Above Normal | No Dryness |
| Qala-e-naw | 61 | 66.3 | 106 | -39.5 | Bellow Normal | Dryness |
| Shindand | 28 | 50 | 50.8 | -0.8 | Bellow Normal | Dryness |
| Rainfall in Qala-e-Now and Shindand were decreased in 2014 with respect to Long Term Average (LTA) | | | | | | |

Data Source: Agromet Network

Rainfall Graphs for the Month of March 2014



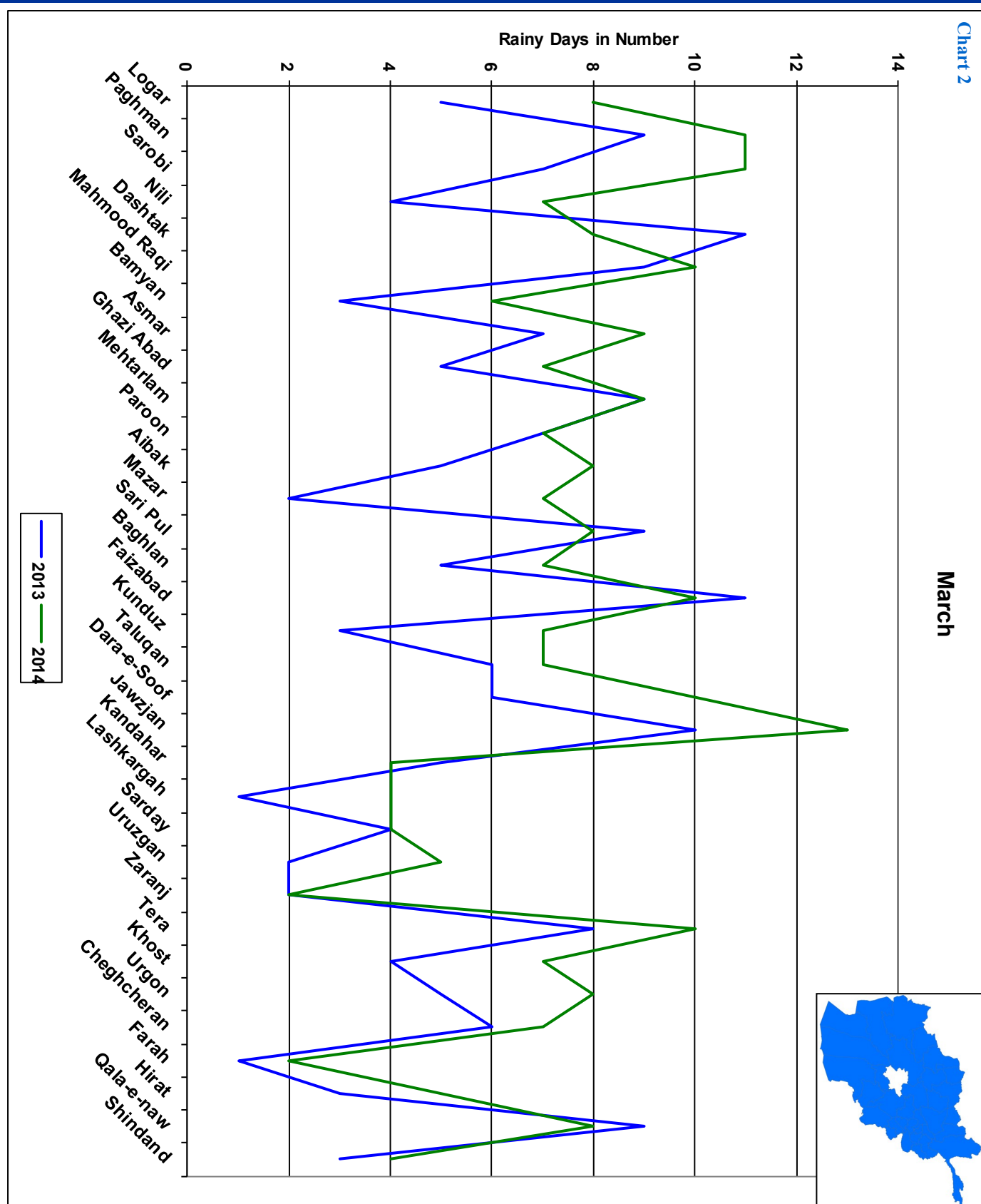
Rainy Days

Based on the bellow table, the areas of Logar, Paghman, Sarobi, Nili, Mahmood raqi, Bamyan, Asmar, Ghazi Abad, Aibak, Mazar, Baghlan, Kunduz, Taluqan, Dara-e-Soof, Jawzjan, Lashkargah, Uruzgan, Shindand, Tera, Khost, Urgon, Cheghcheran, Farah and Hirat having higher number of rainy days during the month of March 2014, compared to the same month in 2013.

The areas such as, Sari Pul, Faizabad , Qala-e-Naw, Dashtak and Kandahar are the areas with the least number of rainy days in March 2014, in comparison to the same month of 2013. The areas such as Mehtarlam, Paroon, Sarday and Zaranj are the areas that had equal rainy days in comparison to the same month of last year.

| No | Station Name | March | | Table 2 Comparison Prediction with respect to (2012) |
|----|--------------|------------|------|--|
| | | Rainy Days | | |
| | | 2013 | 2014 | |
| 1 | Dashtak | 11 | 8 | Dryness |
| 2 | Logar | 5 | 8 | No Dryness |
| 3 | Paghman | 9 | 11 | No Dryness |
| 4 | Sarobi | 7 | 11 | No Dryness |
| 5 | Bamyan | 3 | 6 | No Dryness |
| 6 | Mahmood Raqi | 9 | 10 | No Dryness |
| 7 | Nili | 4 | 7 | No Dryness |
| 8 | Ghaziabad | 5 | 7 | No Dryness |
| 9 | Asmar | 7 | 9 | No Dryness |
| 10 | Mehterlam | 9 | 9 | No Change |
| 11 | Paroon | 7 | 7 | No Change |
| 12 | Aibak | 5 | 8 | No Dryness |
| 13 | Mazar | 2 | 7 | No Dryness |
| 14 | Saripul | 9 | 8 | Dryness |
| 15 | Baghlan | 5 | 7 | No Dryness |
| 16 | Faizabad | 11 | 10 | Dryness |
| 17 | Kunduz | 3 | 7 | No Dryness |
| 18 | Taluqan | 6 | 7 | No Dryness |
| 19 | Dara-e-soof | 6 | 10 | No Dryness |
| 20 | Jawzjan | 10 | 13 | No Dryness |
| 22 | Kandahar | 5 | 4 | Dryness |
| 23 | Lashkargah | 1 | 4 | No Dryness |
| 24 | Sarday | 4 | 4 | No Change |
| 25 | Uruzgan | 2 | 5 | No Dryness |
| 26 | Zaranj | 2 | 2 | No Change |
| 27 | Tera | 8 | 10 | No Dryness |
| 28 | Khost | 4 | 7 | No Dryness |
| 29 | Urgon | 5 | 8 | No Dryness |
| 30 | Cheghcheran | 6 | 7 | No Dryness |
| 31 | Farah | 1 | 2 | No Dryness |
| 32 | Hirat | 3 | 5 | No Dryness |
| 33 | Qala-e-naw | 9 | 8 | Dryness |
| 34 | Shindand | 3 | 4 | No Dryness |

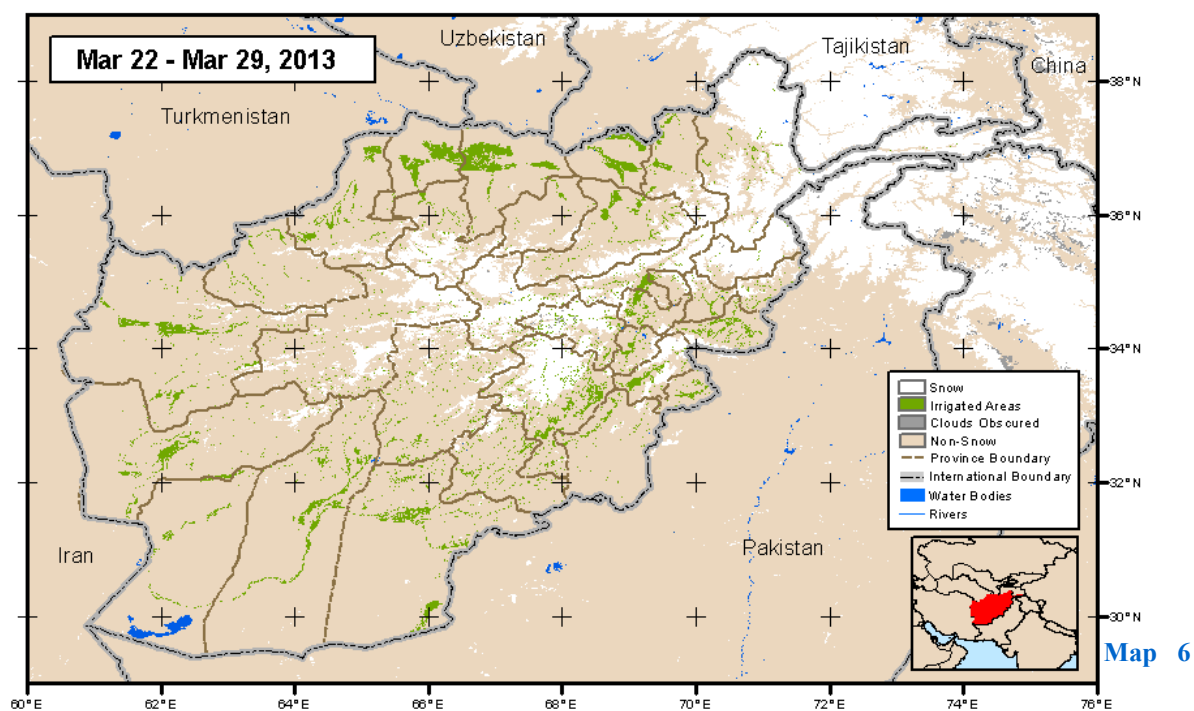
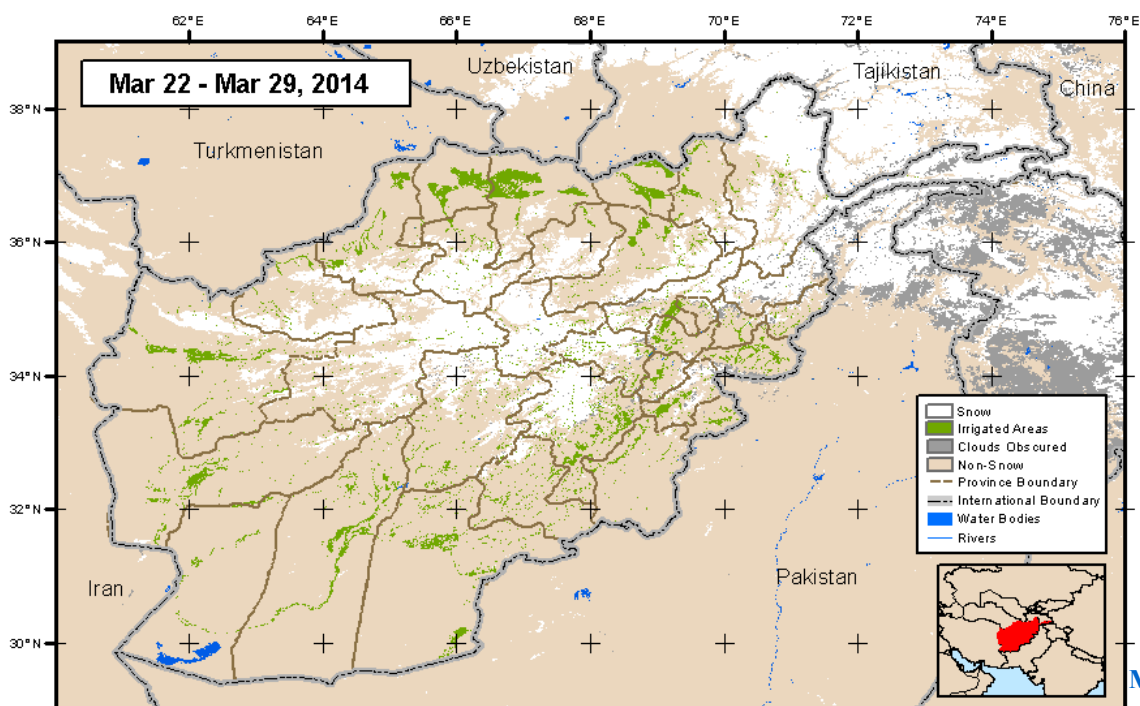
Rainy Days for the Month of March 2014



Comparison of rainy days for the month of March 2014, with the same month of last year (Chart 2) shows significant increase of rainy days compared to the

same month of last year aside from few parts of the Central, North and North East.

MODIS 8-day Snow Cover Extent Current Period vs. Previous Year



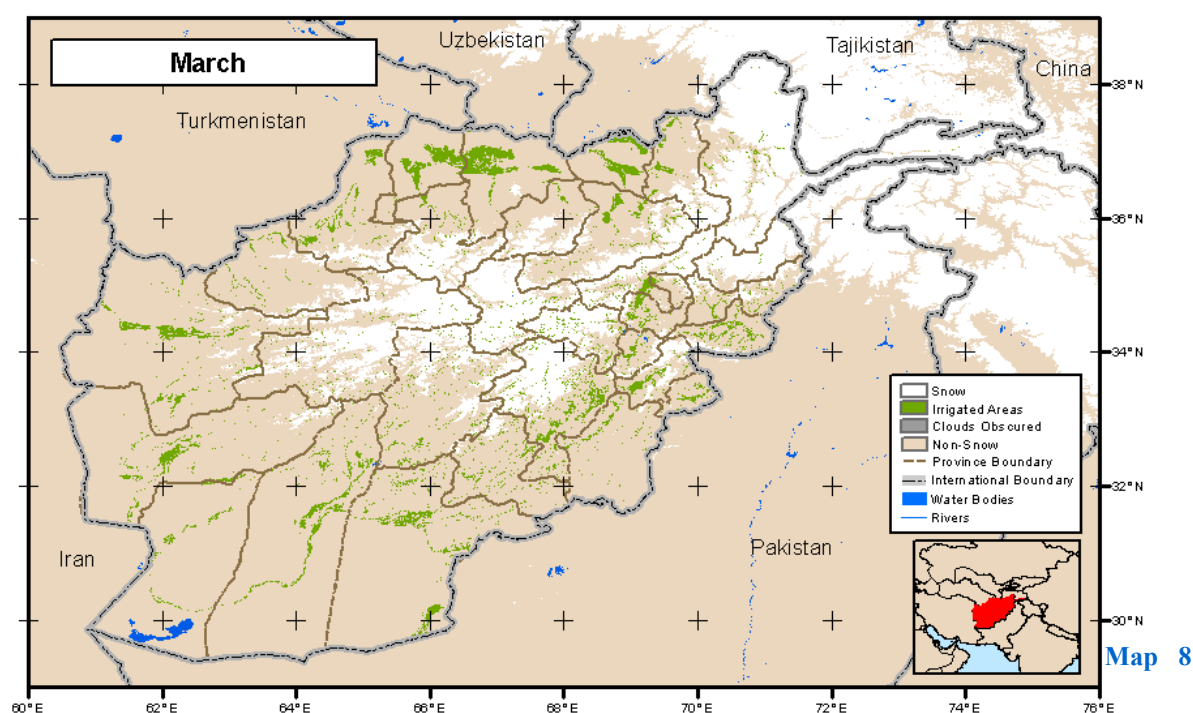
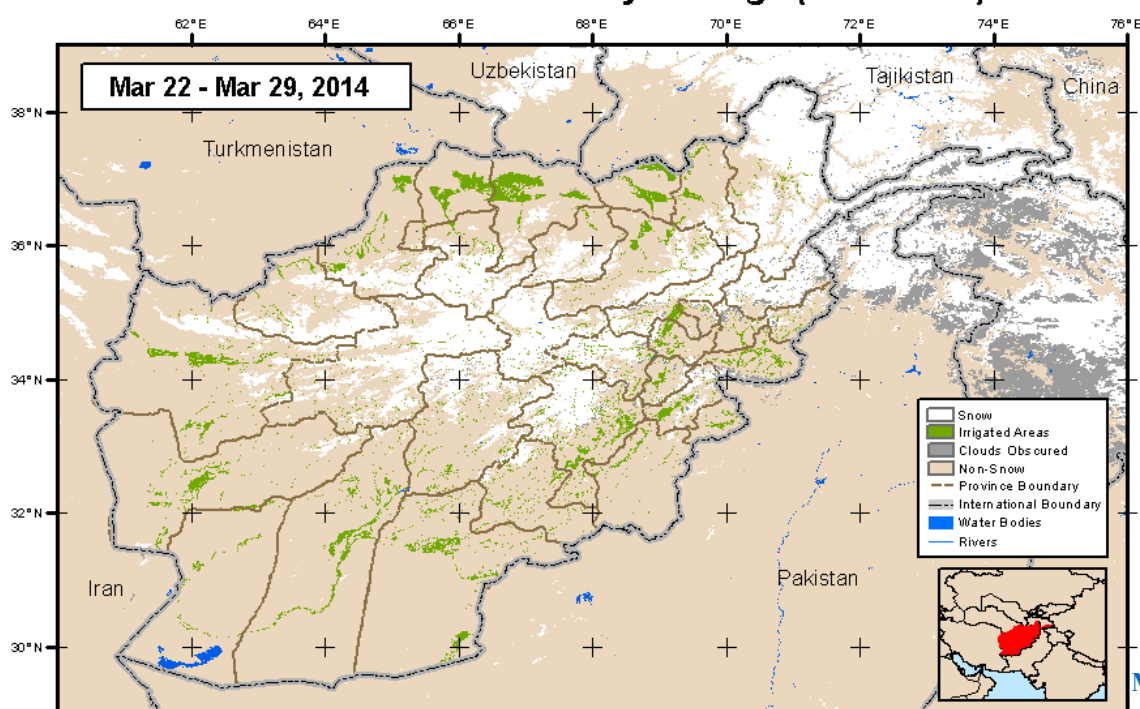
Map created by USGS/EROS



Comparison of snow extent for the period of (March 22 – March 29) 2014 with the same period in 2013 (Map 5 - 6) shows slightly increase in snow extent

during the above mentioned period of time over the same period of time in 2013.

MODIS 8-day Snow Cover Extent Current Period vs. Monthly Average (2001-2012)

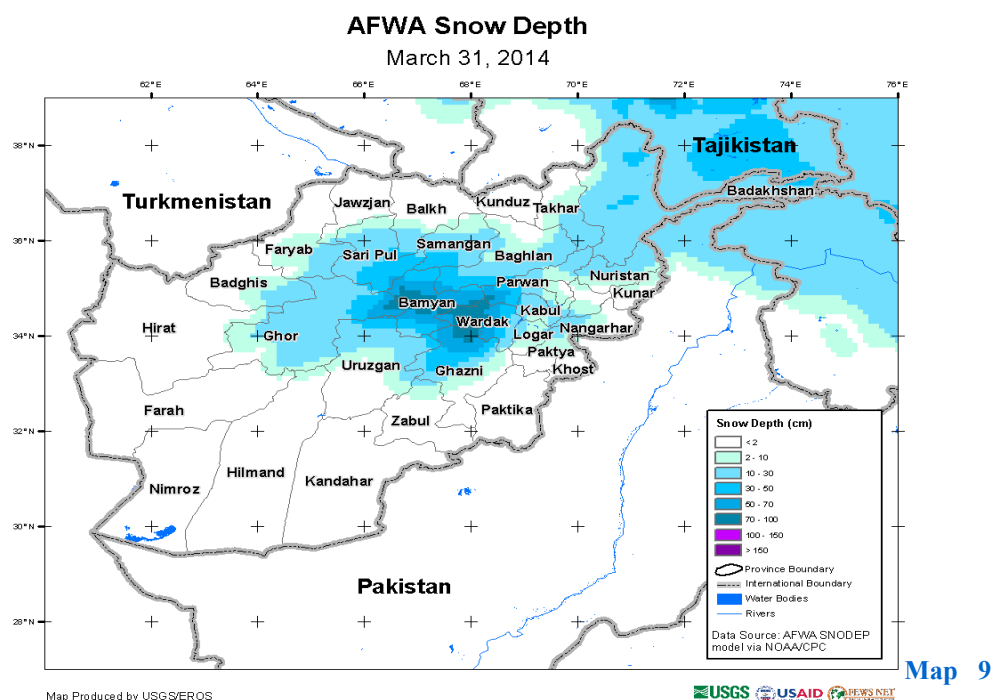


Map created by USGS/EROS



Comparison of snow extent for the month of March 2014, with the same month of long term average (Map 7-8) shows slightly increase in snow extent

during the month of March 2014, over the same month of long term average.



Map (9) shows snow depth for the end of March 2014. As map (9) shows the snow depth has been recorded from 70 to 100 cm in a few part of the central Highlands

and 50 – 70 cm in most parts of Central Highlands, North East and North West.



For more information please contact:

| Name | Position | Cell | Email Address |
|-----------------------|---|------------|--|
| Gh.Rabbani Haqiqatpal | Director of Marketing, Economics &Statistic Division (MAIL) | 0700284879 | rabani.haqiqatpal@gmail.com |